IN THE CLAIMS:

1.   (Currently Amended) A method for providing and processing a cursored

user interaction ~~with a spatially displayed medical image and performing image~~

~~processing on said medical image~~, said method comprises the steps of:

providing a menu-less graphical interface having a plurality of sensitive

areas, each sensitive area is positioned at a predetermined, fixed relative position with

respect to an associated medical image display field and with respect to at least one

additional sensitive area, wherein each of the plurality of sensitive areas corresponds to at

least one function and is associated with one of a plurality of different cursors providing a

visual cue as to the at least one function corresponding to each of the plurality of

sensitive areas;

spatially displaying a medical image in said field; and,

while said image continues to be displayed, controlling a mouse

configured such that positionings of said mouse within each of said plurality of sensitive

areas causes display of one of the plurality of different cursors and allows activation and

control of a plurality of inherent processing functionalities for performing the at least one

function respectively associated with each of said plurality of sensitive areas, said at least

one function comprising image processing on said spatially displayed medical image,

said controlling positioning said mouse within an area from among said areas to cause

said display and allow said activation and control.

2.   (Currently Amended) A method as claimed in Claim 1, <u>wherein</u>

<u>performing said image processing comprises</u>for selecting grey range and/or color range

windowing through geometrical mouse positioning.

3.   (Currently Amended) A method as claimed in Claim 1, <u>wherein</u>

<u>performing said image processing comprises</u>for selecting image mirror or rotation

transformations.

4.   (Currently Amended) A method as claimed in Claim 1, <u>wherein</u>

<u>performing said image processing comprises</u>for selecting image zoom or pan

transformations.

5.   (Currently Amended) A method as claimed in Claim 1, <u>wherein</u>

<u>performing said image processing comprises</u>for selecting shutter masking of the display

field.

6.   (Currently Amended) A method as claimed in Claim 1, <u>wherein</u>

<u>performing said image processing comprises</u>for selectably navigating through a sequence

of images that base on marginal stepping with respect to an imaged object.

7.   (Currently Amended) An apparatus for providing and processing cursored user interactions ~~with a spatially displayed medical image and producing graphics related data on said medical image~~, said apparatus ~~comprises~~comprising:

a menu-less graphical interface having a plurality of sensitive areas, each sensitive area is positioned at a predetermined, fixed relative position with respect to an associated medical image display field and with respect to at least one additional sensitive area, wherein each of the plurality of sensitive areas corresponds to at least one function and is associated with one of a plurality of different cursors providing a visual cue as to the at least one function corresponding to each of the plurality of sensitive areas;

a mouse configured such that positionings of said mouse within each of said plurality of sensitive areas causes display of one of the plurality of different cursors and allows activation and control of a plurality of inherent processing functionalities for performing, while a medical image continues to be spatially displayed in said field, the at least one function respectively associated with each of said plurality of sensitive areas, said at least one function comprising image processing on the spatially displayed medical image, said controlling positioning said mouse within an area from among said areas to cause said display and allow said activation and control; and

display means dimensioned for displaying said medical image and said menu-less graphical interface.

8.   (Currently Amended) An apparatus as claimed in Claim 7, and having selection means for performing said image processing by selecting grey range and/or color range windowing through geometrical mouse positioning.

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9.   (Currently Amended) An apparatus as claimed in Claim 7, and having

selection means for performing said image processing by selecting image mirror or

rotation transformations.

10.   (Currently Amended) An apparatus as claimed in Claim 7, and having

selection means for performing said image processing by selecting image zoom or pan

transformations.

11.   (Currently Amended) An apparatus as claimed in Claim 7, and having

selection means for performing said image processing by selecting edged shutter masking

of the display field.

12.   (Currently Amended) An apparatus as claimed in Claim 8, and having

navigation means for performing said image processing by selectably navigating through

a sequence of images that base on marginal stepping with respect to an imaged object.

13.   (Currently Amended) A machine-readable computer program, said

program being arranged for providing and processing a cursored user interaction ~~with a~~

~~spatially displayed medical image and performing image processing on said medical~~

~~image~~, said computer program comprising the steps of:

providing a menu-less graphical interface having a plurality of sensitive

areas, each sensitive area is positioned at a predetermined, fixed relative position with

respect to an associated medical image display field and with respect to at least one

additional sensitive area, wherein each of the plurality of sensitive areas corresponds to at

least one function and is associated with one of a plurality of different cursors providing a

visual cue as to the at least one function corresponding to each of the plurality of

sensitive areas;

<u>spatially displaying a medical image in said field; and,</u>

<u>while said image continues to be displayed,</u> controlling a mouse

configured such that positionings of said mouse within each of said plurality of sensitive

areas causes display of one of the plurality of different cursors and allows activation and

control of a plurality of inherent processing functionalities for performing the at least one

function respectively associated with each of said plurality of sensitive areas, <u>said at least</u>

<u>one function comprising manipulating the spatially displayed medical image, said</u>

<u>controlling positioning said mouse within an area from among said areas to cause said</u>

<u>display and allow said activation and control</u>; ~~and~~

~~controlling outputting representations of said processing functionalities.~~

14. (New) The method of claim 1, comprising the step of, responsive to said positioning, executing said performing of a function from among said at least one function to thereby perform said image processing.

15. (New) The method of claim 1, such that continuous movement of said mouse, and consequently an on-screen cursor, in a direction, from a center of said field, toward an area from among said plurality of sensitive areas causes, upon entering said area, display of a respective one of said plurality of different cursors and allows said activation and control of a respective one of said plurality of inherent processing functionalities, said spatially displayed medical image being located in said field and, in relation to said area, in a direction opposite to said direction toward said area.

16. (New) The method of claim 1, wherein said image processing comprises manipulating said medical image for diagnostic viewing.

17. (New) The apparatus of claim 7, wherein said image processing comprises manipulating said medical image for diagnostic viewing.

18. (New) A method for providing and processing a cursored user interaction with a spatially displayed medical image and performing image processing on said medical image, said method comprising:

providing a menu-less graphical interface having a plurality of sensitive areas respectively positioned at predetermined, fixed relative positions with respect to an

associated medical image display field, at least two of the areas being positioned at
predetermined, fixed relative positions with respect to each other, the plural sensitive
areas corresponding to respective functions and being associated with respective ones of
a plurality of different cursors that each provide a visual cue as to an associated function
from among said respective functions; and

controlling a mouse having an on-screen cursor and configured such that
continuous movement of said cursor in a direction, from a center of said field, toward an
area from among said plural sensitive areas causes, upon entering said area, display of a
respective one of the plurality of different cursors and allows activation and control of a
plurality of inherent processing functionalities for performing a corresponding function
from among said respective functions, said performing of said corresponding function
occurring on said spatially displayed medical image which is located in said field and, in
relation to said area, in a direction opposite to said direction toward said area, said
corresponding function comprising image processing on said spatially displayed medical
image.

19. (New) The method of claim 18, further comprising spatially displaying
a medical image that constitutes said spatially displayed medical image, and subsequently
executing said performing.

20. (New) The method of claim 19, comprising executing, while said
spatially displayed medical image continues to be displayed, said continuous movement
of said cursor.

21. (New) The method of claim 18, wherein said image processing comprises manipulating said medical image for diagnostic viewing.